

**NORTH CAROLINA DIVISION OF  
AIR QUALITY**

**Air Permit Review**

**Issue Date:** **INSERT DATE**

**Region:** Winston-Salem Regional Office  
**County:** Randolph  
**NC Facility ID:** 7600198  
**Inspector's Name:** Robert Barker  
**Date of Last Inspection:** 11/18/2015  
**Compliance Code:** 3 / Compliance - inspection

<b>Facility Data</b>						<b>Permit Applicability (this application only)</b>	
<b>Applicant (Facility's Name):</b> Norcraft Companies, LP, dba UltraCraft Cabinetry <b>Facility Address:</b> Norcraft Companies, LP, dba UltraCraft Cabinetry 6163 Old 421 Road Liberty, NC 27298 <b>SIC:</b> 2434 / Wood Kitchen Cabinets <b>NAICS:</b> 33711 / Wood Kitchen Cabinet and Countertop Manufacturing <b>Facility Classification: Before:</b> Title V <b>After:</b> Title V <b>Fee Classification: Before:</b> Title V <b>After:</b> Title V						<b>SIP:</b> 2D .0515, .0516, .0521, .1100, .1806, 2Q .0317 for 2D .0530 and .1111 <b>NSPS:</b> <b>NESHAP:</b> <b>PSD:</b> <b>PSD Avoidance:</b> <b>NC Toxics:</b> <b>112(r):</b> <b>Other:</b> Title V Renewal	
<b>Contact Data</b>						<b>Application Data</b>	
<b>Facility Contact</b> Jim Mullen Director of Facilities (866) 259-5799 6163 Old 421 Road Liberty, NC 27298		<b>Authorized Contact</b> Gary Taylor Vice President of Operations (888) 888-7986 6163 Old 421 Road Liberty, NC 27298		<b>Technical Contact</b> Jim Mullen Director of Facilities (866) 259-5799 6163 Old 421 Road Liberty, NC 27298		<b>Application Number:</b> 7600198.16A and .16B <b>Date Received:</b> 08/29/2016 and 01/25/2016 <b>Application Type:</b> Modification <b>Application Schedule:</b> TV- Renewal and State Only Modification <b>Existing Permit Data</b> <b>Existing Permit Number:</b> 05951/T21 <b>Existing Permit Issue Date:</b> 03/11/2016 <b>Existing Permit Expiration Date:</b> 12/31/2016	
<b>Total Actual emissions in TONS/YEAR:</b>							
CY	SO2	NOX	VOC	CO	PM10	Total HAP	Largest HAP
2015	0.0100	1.03	196.81	0.8700	0.6100	4.69	2.43 [Xylene (mixed isomers)]
2014	0.0100	1.03	186.05	0.8700	0.7200	4.68	1.80 [Xylene (mixed isomers)]
2013	0.0100	1.03	165.24	0.8700	0.6200	6.60	2.82 [Xylene (mixed isomers)]
2012	0.0100	0.9900	135.35	0.8300	0.2500	14.75	5.49 [Xylene (mixed isomers)]
2011	---	0.7800	119.30	0.6600	0.4300	12.81	4.90 [Xylene (mixed isomers)]
<b>Review Engineer:</b> Charles F. Yirka  <b>Review Engineer's Signature:</b> <b>Date:</b> <b>INSERT DATE</b>					<b>Comments / Recommendations:</b> <b>Issue</b> 05951/T22 <b>Permit Issue Date:</b> <b>INSERT DATE</b> <b>Permit Expiration Date:</b> <b>INSERT DATE</b>		

## **I. Purpose of Application**

Norcraft Companies, LP, dba UltraCraft Cabinetry (Norcraft) currently holds Title V Permit No. 05951T21 with an expiration date of December 31, 2016 for a furniture manufacturing facility in Liberty, Randolph County, North Carolina. This permit application is for a permit renewal with a state-only modification. The renewal application was received on January 26, 2016, or at least nine months prior to the expiration date, as required by General Permit Condition 3.K. Therefore, the existing permit shall not expire until the renewal permit has been issued or denied. All terms and conditions of the existing permit shall remain in effect until the renewal permit has been issued or denied.

Norcraft requested an air permit modification to add emission limits for several Toxic Air Pollutants (TAPS), based on air dispersion modeling conducted for the facility by the applicant. The manufacturing process is not being modified under this permit application. However, the modeled emission rates will allow more flexibility in the selection of cabinet coatings.

An air dispersion modeling protocol was submitted and approved by the Division of Air Quality (DAQ). Norcraft has requested the air toxic emission rates for the facility be set at levels that resulted in ambient concentrations of 99% of the acceptable ambient levels (AALs) as determined using the air dispersion model AERMOD.

## **II. Facility Description**

As per the latest compliance inspection report, Norcraft manufactures laminated wood cabinets for residential kitchens and bathrooms. Some of the cabinet doors arrive at the facility already coated by a “foil” that does not use solvents. This “foil” process creates a smooth undercoat which can stand alone, or to which a topcoat can be applied. The facility is currently operating two shifts per day (8 hours each), 5 days per week, for 50 weeks per year or 4,000 hours per year.

## **III. History/Background/Application Chronology**

### Permit History, Background and Application Chronology since the Last TV Permit Renewal

**January 4, 2012** - Title V Air Quality Permit No. 05951T20 was issued for renewal with an expiration date of December 31, 2016.

**January 30, 2012** – A Compliance Notice of Deficiency (NOD) was issued by the Winston Salem Regional Office (WSRO) informing Norcraft that the facility was not recording the maximum facility-wide hourly formaldehyde emissions in a daily log. By failing to do this, Norcraft was deficient in fulfilling the requirements of Condition 2.2.A.3 of Air Quality Permit 05951T20.

**October 31, 2013** - A Clean Air Act Section 502(b)(10) change notification was acknowledged by the Raleigh Central Office (RCO) (Application No. 7600198.13A). Applicant provided EPA the required seven-day advanced notice of a 502(b) (10) change for the addition of an additional spray booth (**ID No. SB-19**) before construction began.

**May 5, 2014** – A Notice of Violation (NOV) was issued by the WSRO informing Norcraft that their quarterly report as required by Air Quality Permit No. 05951T20, condition 2.2.A.3 for the purpose of complying with 15A NCAC 02D .1100, “Control of Toxic Air Pollutants,” was late.

**August 18, 2015** - A permit application was submitted for a minor modification (Application No. 7600198.15A).

**November 18, 2015** – Last compliance inspection of the facility by Mr. Robert Barker of the WSRO.

**January 25, 2016** – Application 7600198.16B was received for renewal of the Title V Permit-No. 05951T21 pursuant to 15A NCAC 02Q .0513 – Permit Renewal and Expiration. The application was overlooked and not entered into IBEAM at the time.

**March 11, 2016** – Title V Air Permit No. 05951T21 was issued for the combined applications 7600198.13A and .15A for incorporation of a 502(b)(10) change and a minor modification, respectively, with an expiration date of December 31, 2016.

**March 17, 2016** – A NOV was issued by the WSRO informing Norcraft that their Annual Compliance Certification as required by Air Quality Permit No. 05951T20, condition 3.P was late. This certification report was due on March 1, 2016 and was not received until March 14, 2016.

**August 31, 2016** - Application 7600198.16A was acknowledged for the state-only modification of the existing Title V permit 05951T21 received August 29, 2016.

**September 6, 2016** – A request for additional information regarding the status of the renewal application was issued since the application appeared to be late and there was no record of receipt. A renewal application must be received at least 9 months prior to the expiration date. The expiration date is December 31, 2016. The applicant responded indicating that an application dated January 25, 2016 was submitted. Apparently at the time it was received, this application was overlooked and not entered into IBEAM. Also received comments on the application .16A from Mr. Barker of the WSRO.

**September 19, 2016** - Application 7600198.16B was acknowledged for the renewal of the existing Title V Permit 05951T21 received January 25, 2016.

**September 27, 2016** – Memorandum issued by Ms. Nancy Jones of the Air Quality Analysis Branch (AQAB) approving Norcraft's dispersion modeling analysis.

**November 29, 2016** – Draft permit sent for review to Title V Supervisor. Comments received from Title V Supervisor the same day.

**December 8, 2016** - Draft permit sent for review to Stationary Source Compliance Branch (SSCB), WSRO and Permittee for review.

**December 9, 2016** – Comments received from Mr. Barker of the WSRO.

**December 12, 2016** – Comments received from the Permittee.

**INSERT DATE** – Permit issued.

#### **IV. Permit Modifications/Changes and ESM Discussion**

The following table describes the modifications to the current permit as part of the Title V renewal and modification process.

Page	Section	Description of Change
Cover Letter	-	-amended all dates, added PSD classification and permit revision numbers -corrected Responsible Official (RO) to Gary Taylor replacing William Reimer -added copy to EPA Region IV Ms. Heather Ceron for this Title V renewal
Attachment	Insignificant activities	-replaced permit revision number -added additional six natural gas fired make-up air units ( <b>ID No. IS-MU-1 through IS-MU-6</b> ) as reported by WSRO to the list -corrected the hyperlink in footnote 3
Permit Cover	-	-replaced permit revision number, effective and expiration date in header -inserted application numbers, complete application date and issue date
All	Header	-replaced permit revision number
4	2.1 A.2.c	-removed the requirement for Permittee establishing normal visible emissions for the sanding room with associated bagfilter
7	2.1 A.3	-removed the regulation 15A NCAC 02D .0958 from the permit as this regulation no longer applies state-wide
9	2.2 – Table	-removed formaldehyde from table as 15A NCAC 02D .1100 now will apply to all the TAPs that were modeled at 99% of the AAL under this application -removed the regulation 15A NCAC 02Q .0711
11	2.2 A.3  2.2 A.3. a	-revised conditions associated with 15A NCAC 02D .1100 replacing the table with formaldehyde only with a table with all modeled emission limits. -revised the Monitoring/Recordkeeping requirements replacing the requirement to determine the formaldehyde emissions daily with a requirement to monitor the hours of operation and the monthly formaldehyde emissions and calculate the daily emissions
12	2.2 A.4	-removed the regulation 15A NCAC 02Q .0711 from the permit since all of the listed TAPs were modeled at 99% of the AAL and now appear under 15A NCAC 02D .1100

The Title V equipment editor (TVEE) was updated to match the modified permit as necessary and approved by Ms. Jenny Shepard on November 29, 2016.

## V. Regulatory Review

The facility is currently subject to the following regulations:

15A NCAC 02D .0512, Particulates from Miscellaneous Wood Products Finishing Plants

15A NCAC 02D .0516, Sulfur Dioxide Emissions from Combustion Sources

15A NCAC 02D .0521, Control of Visible Emissions

15A NCAC 02D .1100, Control of Toxic Air Pollutants (State-enforceable only)

15A NCAC 02D .1806, Control and Prohibition of Odorous Emissions (State-enforceable only)

15A NCAC 02Q .0317, Avoidance Conditions (for 15A NCAC 02D .0530, Prevention of Significant Deterioration and 15A NCAC 02D .1111, Maximum Achievable Control Technology)

15A NCAC 02Q .0711, Emission Rates Requiring a Permit (State-enforceable only)

More information about these regulations is provided below. The permit will be updated to reflect the most current stipulations for all applicable regulations.

15A NCAC 02D .0512, Particulates from Miscellaneous Wood Products Finishing Plants -

The Permittee shall not cause, allow, or permit particulate matter caused by the working, sanding, or finishing of wood to be discharged from any stack, vent, or building into the atmosphere without providing, as a minimum for its collection, adequate ductwork and properly designed collectors. In no case shall the ambient air quality standards be exceeded beyond the property line.

The woodworking operations (**ID Nos. WCS-1 and WCS-2**), the sanding room (**ID No. SR**) with belt sanders, sanding booths, the spray booths (**ID Nos. SB-1 through SB-19**) and gluing operation (**ID No. GLU-1**) are subject to 02D .0512. Norcraft has to conduct inspection and maintenance of the control devices on these sources to ensure compliance. No changes to the monitoring, recordkeeping, or reporting requirements are needed under this renewal. Continued compliance is expected.

15A NCAC 02D .0516, Sulfur Dioxide from Combustion Sources – The natural gas-fired bake ovens (**ID Nos. BO-1 through BO-3**) in addition to the six make-up air units (**ID Nos. IS-MU-1 through IS-MU-6**) added to the insignificant activities list under this permit renewal/modification are subject to 02D .0516. No monitoring, recordkeeping, or reporting is required when firing natural gas because of the low sulfur content of this fuel. This fuel is inherently low enough in sulfur that continued compliance is expected. No changes to the monitoring, recordkeeping, or reporting are required under this permit renewal/modification.

15A NCAC 02D .0521, Control of Visible Emissions – Visible emissions from the following sources shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.

The following equipment was manufactured after July 1, 1971 and must not have visible emissions of more than 20 percent opacity when averaged over a six-minute period, except as specified in 15A NCAC 02D .0521(d).

- Woodworking operations (**ID Nos. WCS-1 and WCS-2**) and sanding room (**ID No. SR**) - To ensure compliance with 02D .0521, the facility is required to conduct weekly visible emission observations. Under the previous permit modification, these emission sources were modified, and the facility had to re-establish “normal” visible emissions for these sources within the first thirty days of operation of the sanding room (**ID No. SR**). The permit will be modified to remove the language to reestablish normal for all sources. No other changes to the monitoring, recordkeeping, or reporting are required under this permit renewal/modification, and continued compliance is expected.
- Spray booths (**ID Nos. SB-1 through SB-19**) and gluing operation (**ID No. GLU-1**) - To ensure compliance with 02D .0521, the facility is required to conduct monthly visible emission observations. No changes to the monitoring, recordkeeping, or reporting are required under this permit renewal, and continued compliance is expected.
- No monitoring, recordkeeping, or reporting is required when firing natural gas in the bake ovens (**ID Nos. BO-1 through BO-3**). No changes to the monitoring, recordkeeping, or reporting are required under this permit renewal, and continued compliance is expected.

15A NCAC 02D .1100, Control of Toxic Air Pollutants – The facility is subject for eleven toxic air pollutants as discussed in Section VII. The permit condition was modified under this renewal to allow Norcraft flexibility in selecting alternative coatings. More discussion on this rule is provided under Section VII.

15A NCAC 02D .1806, Control and Prohibition of Odorous Emissions – The facility is required to not operate the facility without implementing management practices or installing and operating odor control equipment sufficient to prevent odorous emissions from the facility from causing or contributing to objectionable odors beyond the facility's boundary. There does appear to be a history of compliance with this regulation as there does not appear to be any complaints of odor by the public. Continued compliance is expected.

15A NCAC 02Q .0317, Avoidance Conditions (for 15A NCAC 02D .0530, Prevention of Significant Deterioration) – Norcraft has accepted an avoidance limit for 15A NCAC 02D .0530 Prevention of Significant Deterioration. The permit condition requires the emissions of VOCs not to exceed 250 tons per year and to be calculated at the end of each month. The calculated emissions must be entered in a logbook along with the calculated rolling average for the previous 12 months. A summary report of the required monitoring and recordkeeping is required every six months including the preceding six-month period monthly emissions. The permit condition did not require any modification under this renewal. As per the above emissions inventory summary, VOC emissions in 2015 were reported to be 196.81 tons per year. Continued compliance with this facility-wide VOC limit is expected.

15A NCAC 02Q .0317, Avoidance Conditions (for 15A NCAC 02D .1111, Maximum Achievable Control Technology) - Norcraft has accepted an avoidance limit for 15A NCAC 02D .1111, Maximum Achievable Control Technology. The permit condition requires the emissions of HAPs not to exceed 10 tons per year for each individual HAP and 25 tons per year for combined HAPs. The emissions of HAPs are required to be calculated at the end of each month. The calculated emissions must be entered in a logbook along with the calculated rolling average for the previous 12 months. A summary report of the required monitoring and recordkeeping is required every six months including the preceding six-month period monthly emissions. The permit condition did not require any modification under this renewal. As per the above emissions inventory summary for 2015, the reported total HAP emissions were 4.69 tons per year, while emissions from the largest individual HAP emitted, Xylene, were 2.43 tons per year. Continued compliance with these facility-wide HAP limits is expected.

## **VI. NSPS, NESHAPS/MACT, PSD, 112(r), CAM, etc.**

**NSPS** – The Permittee is not currently subject to any New Source Performance Standards. This permit renewal/modification does not affect this status.

**NESHAPS/MACT** – The Permittee is currently subject to facility-wide permit restrictions limiting emissions of hazardous air pollutants (HAPs) to less than 10 tons per year of each individual HAP and less than 25 tons per year of the combination of all HAPs in order to avoid applicability to the MACT standards (specifically Subpart JJ). The current permit includes requirements that the Permittee monitor and report the quantities of HAP containing materials used each month. This permit renewal/modification does not affect this status.

This MACT avoidance defines the facility as a Title III minor facility. There are no area source GACTs applicable to this facility.

**Attainment Status /PSD** – This facility is located in Randolph County, which is in attainment for the ozone NAAQS. The Permittee currently operates under a facility-wide volatile organic compound

(VOC) prevention of significant deterioration (PSD) avoidance limit of 250 tons per year in order to be classified as a PSD minor facility. The permit includes a requirement to calculate VOC emissions monthly and submit semi-annual reports of the monthly and yearly totals. This permit renewal/modification does not affect this status.

**Increment Consumption/Generation** – Randolph County is not a NC county with a triggered PSD minor source baseline date. Increment tracking is not required.

**Insignificant Activities** – The list of insignificant activities required modification with the addition of six natural gas fired make-up air units. All the listed sources have potential emissions of criteria pollutants of less than 5 tons per year and HAPs of less than 1,000 pounds per year.

**112(r)** – The facility is not subject to Section 112(r) of the Clean Air Act requirements because it does not store any of the regulated substances in quantities above the thresholds in the Rule. This permit renewal/modification does not affect this status.

**PE Requirement** - There are no new emissions sources or controls proposed under this application. A professional engineer's seal was not required for this application.

**Local Zoning Consistency Requirement** – There are no new emissions sources or controls proposed under this application. Therefore, the application did not require a submittal of documentation indicating the local zoning authority received a copy of the application.

**CAM** – 40 CFR Part 64 is applicable to any pollutant-specific emission unit, if the following three conditions are met:

- the unit is subject to any (non-exempt: e.g. pre November 15, 1990, Section 111 or Section 112 standard) emission limitation or standard for the applicable regulated pollutant.
- the unit uses any control device to achieve compliance with any such emission limitation or standard.
- the unit's pre-control potential emission rate exceeds either 100 tons per year (for criteria pollutants) or 10/25 tons per year (for HAPs).

Applicability to CAM was evaluated at a prior permit renewal<sup>1</sup>. The woodworking operations exhaust to two wood waste collection systems (**ID Nos. WCS-1 and WCS-2**), which in turn vent to a bagfilter (**ID No. BF-1**). The woodworking operations are exempt from a CAM plan because pre-control PM<sub>10</sub> emissions are estimated to be below 100 tons per year. Using the DAQ spreadsheet "Woodworking Emissions Calculator," potential uncontrolled PM<sub>10</sub> emissions are calculated to be 55.4 tons per year.

In addition, the applicability of CAM was again evaluated when the sanding room (**ID No. SR**) which vents into a bagfilter (**ID No. BF-2**) was added to the permit at a prior minor permit modification<sup>2</sup>. The sanding room (**ID No. SR**) with and associated bagfilter (**ID No. BF-2**) has pre-control emissions of 10 pounds per hour of PM<sub>10</sub> or potential of 44 tons per year, therefore the sanding room is exempt from CAM because pre-control PM<sub>10</sub> emissions are estimated to be below 100 tons per year.

## VII. Facility Wide Air Toxics

The air toxics regulations and a facility review were triggered previously for this facility. The state air toxics regulations were last amended May 1, 2014. As per 02Q .0703 – Definitions, a modification means a

<sup>1</sup> Kevin Godwin (09/18/2006)

<sup>2</sup> Charlie Yirka (03/11/2016)

physical change or change in the method of operation that results in a net increase in emissions or ambient concentration of any pollutant listed in 02Q .0711. Norcraft is seeking more flexibility in the selection of cabinet coatings and increasing the allowable TAP emissions as required. Therefore, this would appear to be a change in the method of operation with a net increase in emissions. Norcraft is requesting the air permit be modified to add emission limits based on air dispersion modeling conducted for the facility. Norcraft is also requesting the emission limits for the facility be set at levels that resulted in ambient concentrations of 99% of the acceptable ambient levels as determined using AERMOD. The requested emission limits are presented in Table 6 of the application and in the table below.

TAP	CAS No.	Requested Limitation	
		24-hour (lb/day)	1-hour (lb/hr)
chlorobenzene	108-90-7	985	--
di(2-ethylhexyl)phthalate	117-81-7	13.4	--
ethyl acetate	141-78-6	--	743
ethylene glycol monoethyl ether	110-80-5	53.7	10.08
methyl ethyl ketone	78-93-3	1,656	470
methyl isobutyl ketone	108-10-1	1,146	159
phenol	108-95-2	--	5.04
toluene	108-88-3	2,103	297
toluene diisocyanate, 2,4- and 2,6- isomers	584-84-9 and 91-08-7	0.090	--
xylene	1330-20-7	1,208	342
formaldehyde	50-00-0	--	0.796

The TAP chlorobenzene did not previously appear on the permit and was added under this permit renewal/modification. In effect Norcraft has modeled all the TAPs emitted at the facility at 99% of their AAL, and all modeled TAPs will now be included under Section 2.2 A.3 of the permit.

**Currently, Air Permit 0591T21 condition 2.2 A.3.a.i requires the facility to demonstrate compliance with the modeled emission rate for formaldehyde by calculating the average hourly formaldehyde emissions rate each day and maintaining a log of the results.** Table 2, as found on Page 2 of the application, demonstrates that the hourly formaldehyde emissions rate has never exceeded 30% of the current modeled emission limit (0.633 lb/hr at 99% of the AAL) during the last 3 1/2 years of daily logs. Table 2 also demonstrates that all the other TAPS have never exceeded 3% of any of the AALs during the last 3 1/2 years of daily logs.

Because Norcraft has requested an increase in the modeled emission limit of formaldehyde from 0.633 pound per hour to 0.796 pounds per hour, an even greater margin of safety between actual emission of formaldehyde and the modeled emission rate is anticipated.

**Due to the substantial difference between Norcraft's actual emissions of formaldehyde and the requested emission limit, Norcraft requests that the monitoring requirements be relaxed to allow the calculation of average hourly emissions rates each month rather than each day.** Changing the requirement to a monthly basis will greatly reduce the facility's regulatory burden without compromising ambient air quality. This engineer concurs with this approach. Norcraft will maintain data regarding product usage and days and hours of operation to calculate the emission rates using a material balance approach. Continued compliance with the modeled formaldehyde emission limit is expected.



**All of the other TAPS have such a large difference in the historical actual emissions as compared their modeled emissions rates that this engineer recommends that no monitoring, recordkeeping or reporting be required for these TAPs.** Continued compliance with the modeled emission limits is expected.

### **VIII. Facility Emissions Review**

See Page 1 of this permit review for a historical record of actual emissions. Though the application is for an increase in the emissions of formaldehyde and other TAPs, there is not an increase in potential emissions of Title V pollutants for this renewal.

### **IX. Compliance Status**

During the most recent inspection, conducted on November 18, 2015 by Mr. Robert Barker of the WSRO, the facility appeared to be in compliance with all applicable requirements. Additionally, a signed Title V Compliance Certification (Form E5) indicating that the facility was in compliance with all applicable requirements was included with the permit renewal.

### **X. Public Notice/EPA and Affected State(s) Review**

A notice of the DRAFT Title V Permit shall be made pursuant to 15A NCAC 02Q .0521. The notice will provide for a 30-day comment period, with an opportunity for a public hearing. Copies of the public notice shall be sent to persons on the Title V mailing list and EPA. Pursuant to 15A NCAC 02Q .0522, a copy of each permit application, each proposed permit and each final permit pursuant shall be provided to EPA. Also pursuant to 02Q .0522, a notice of the DRAFT Title V Permit shall be provided to each affected State at or before the time notice provided to the public under 02Q .0521 above. The Forsyth County Local Program is an affected program within 50 miles of the facility and will be notified accordingly.

### **XI. Draft/Proposed Permit Review Summary and Recommendations**

Mr. Barker of the WSRO provided the following comments concerning application 7600198.16A. Raleigh Central Office (RCO) responses follow:

Comment: A compliance inspection was conducted at Norcraft on November 11, 2015 and the facility appeared to be operating in compliance with the Air Quality standards and regulations at the time of the inspection. During the inspection, permit issues were discovered. The facility has 12 natural gas-fired space heaters. Six of the space heaters are 225,000 Btu/hour and the other six are 80,000 Btu/hour. The facility has six natural gas air make-up units. Four of the units are rated at 4.675 million Btu/hr and the other two units are smaller, but their sizes are unknown. The other issues were corrected with the issuance of Air Permit No. 05951T21.

Response: The 12 space heaters can be considered categorically exempt from permitting, as per 02Q .0503(7)(d): "heating units used for human comfort that have a heat input of less than 10,000,000 Btu per hour and that do not provide heat for any manufacturing or other industrial process." Thus, these heaters will not be included in the insignificant activities list.

The six make-up air units, are not categorically exempt but are exempt because of emissions as per 02Q .0503(8). The DAQ emissions calculator hour indicates the potential emissions then be 2.50 tons per year each, assuming all units are equal 4.675 million Btu/hour the NOx the emission factor would be 0.46 pounds per million Btu.

Comment: The facility is not currently subject to any MACTs, but did take an avoidance limit to avoid applicability of MACT Subpart JJ, Wood Furniture Manufacturing Operation.

Response: The existing general avoidance condition was probably taken to avoid MACT Subpart JJ. There does not appear to be another MACT or GACT that would apply.

Comment: The facility was issued a NOV on March 17, 2016 for a late Annual Compliance Certification report. The report was due by March 1, 2016 and was not received until March 14, 2016. In the last 5 years, the facility was also issued a NOV on May 5, 2014 for a late quarterly report and an NOD on January 30, 2012 for not recording the maximum facility-wide hourly formaldehyde emissions in a daily log as required by permit condition 2.2.A.3 (05951T20).

Response: Compliance history is included in Section III of the permit review.

Comment: Once the Title V permit is complete, WSRO requests a draft copy of the permit for review.

Response: A draft copy will be provided for comment.

Mr. Barker of the WSRO provided the following additional comments concerning the draft Title V permit 05951T22 and application 7600198.16A. Raleigh Central Office (RCO) responses follow:

Comment: Under Section 2.2.A.2.b on page 11, the numbering system goes from v. to iv. This should be vi.

Response: Corrected.

Comment: Under Section 2.2.A.3 on page 11 in the table, xylene has an emission limit of 345 lb/hr. In the memorandum from Tom Anderson on September 27, 2016, xylene has a limit of 342 lb/hr. Which should be the limit in the permit?

Response: Corrected. The corrected limit is 342 lb/hr. This was confirmed by Ms. Amigo consultant with Amec-Foster-Wheeler.

## **IX. Conclusions, Comments, and Recommendations**

15A NCAC 02D .0958, Work Practices for Sources of Volatile Organic Compounds – On November 1, 2016, amendments to 15A NCAC 02D .0902 were finalized to narrow applicability of work practice standards in 15A NCAC 02D .0958 from statewide to the maintenance area for the 1997 8-hour ozone standard. This change is being made primarily because the abundance of biogenic VOC emissions in North Carolina results in ozone formation being limited by the amount of available nitrogen oxides (NOx) emissions. Provisions of the Clean Air Act require VOC requirements previously implemented in an ozone nonattainment area prior to redesignation remain in place. However, facilities outside the maintenance area counties for the 1997 8-hour ozone standard would no longer be required to comply with the work practice standards in 02D .0958. Randolph County has never been in nonattainment for the 1997 8-hr ozone standard, and 02D .0958 is no longer applicable to facilities within the county. The permit condition for 02D .0958 will be removed under this permit renewal/modification.

The permit renewal application for Norcraft Companies, LP, dba UltraCraft located in Liberty, Randolph County, NC has been reviewed by DAQ to determine compliance with all procedures and requirements. DAQ has determined that this facility is complying or will achieve compliance, as specified in the permit, with all requirements that are applicable to the affected sources. The DAQ recommends the issuance of Air Permit No. 05951T22.

WSRO recommends issuance of the permit and was presented with a DRAFT permit prior to issuance.

RCO concurs with WSRO's recommendation to issue the air permit.

Issue Permit No. 05951T22

DRAFT